



MI FluFocus

Influenza Surveillance and Avian Influenza Update

Bureau of Epidemiology
Bureau of Laboratories

Michigan Department
of Community Health



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New updates in this issue:

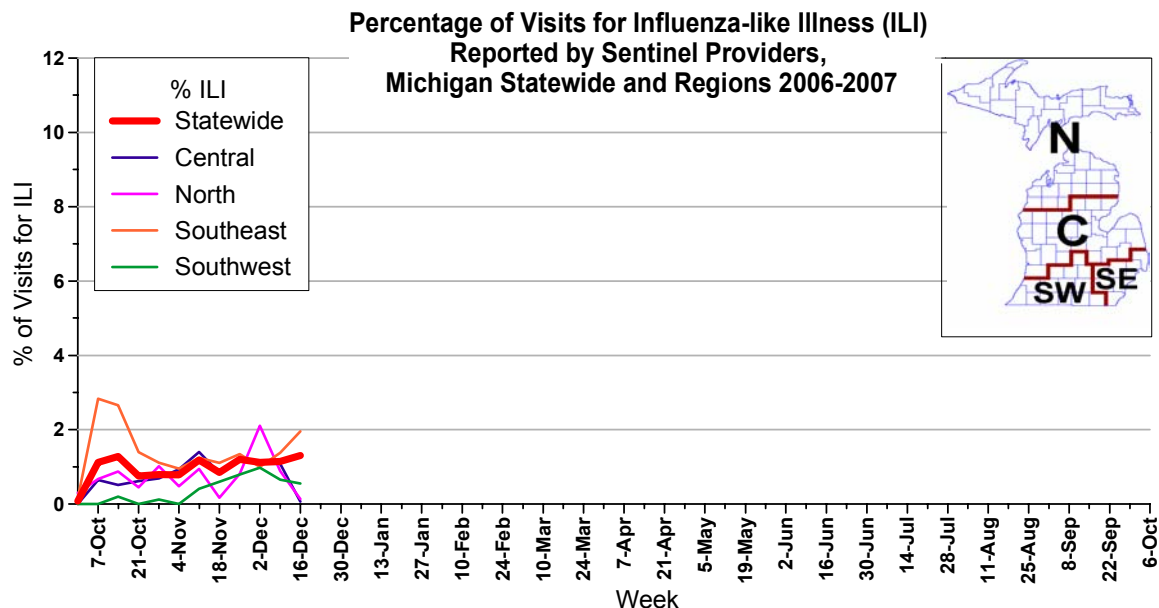
- **Michigan Surveillance:** Influenza activity is increasing in Southeast Michigan; state level is Localized.
- **National Surveillance:** Overall activity remains low except for the Southeast.
- **Avian Influenza:** New poultry outbreaks in Vietnam, Nigeria and South Korea.

Michigan Disease Surveillance System: The last week has seen a slight increase in flu-like illness reports. This increasing trend is expected to continue as the respiratory illness season progresses. The current flu-like illness reported levels, however, are comparable to that seen at this time last year.

Emergency Department Surveillance: Emergency department visits due to both respiratory and constitutional complaints have seen an increase in the last week, with constitutional reports having a more defined increase. These levels are slightly higher but still consistent with levels seen at this time last year. Eight constitutional alerts in Regions 1(1), 2S(2), 3(1), 5(1), 6(2) and Statewide(1) and two respiratory alerts in Regions 5(1) and 7(1) were generated in the past week.

Over-the-Counter Product Surveillance: OTC product sales seem to reflect the increase activity seen in the past week. Most sales remained relatively steady or had an increase in sales, with the exception of chest rubs and cough/cold medicine, which saw a very slight decrease. However, the indicators levels are comparable to those seen at this time last year, except for the adult and pediatric cold relief liquid, which seem to be holding about 1-2% below their percentage of total sales for this time last year.

Sentinel Surveillance (as of December 21, 2006): During the week ending December 16, 2006, the proportion of visits due to influenza-like illness (ILI) in the state remained relatively unchanged from last week at 1.3% of all visits, representing 119 cases of ILI out of 9108 total patient visits; twenty-nine sentinels provided data for this report. On a regional level, the percentage of visits ranged from 0.1% in the Central and North region and 0.5% in the Southwest, to 2.0% in the Southeast surveillance region. Note that these rates may change as additional reports are received.



As part of pandemic influenza preparedness, CDC and MDCH highly encourage and recommend year-round participation from all sentinel providers. New practices are encouraged to join influenza sentinel surveillance program today! Contact Rachel Potter at 517-335-9710 or potterr1@michigan.gov for more information.

Laboratory Surveillance (as of December 21): For the 2006-2007 influenza season, there have been 15 culture-confirmed cases from the MDCH Lab; 12 influenza A (Southeast (9), Central (2), North (1)) and three influenza B (Central (2), Southeast (1)). All influenza A cultures have been H1N1. Overall submission activity is light. Sentinel laboratories are reporting low numbers of positive influenza tests, with several Southeast laboratories reporting an increased number of positive tests. Low levels of parainfluenza, adenovirus and respiratory syncytial virus are being reported as well.

***As a reminder, the positive predictive value of influenza rapid tests decreases during times of low influenza prevalence. MDCH suggests that during periods of low influenza activity in your community, all positive rapid tests results be confirmed by sending in a specimen for viral culture; this can be arranged through your local health department.

Influenza-Associated Pediatric Mortality (as of December 21): For the 2006-2007 season, there are no confirmed reports of influenza-related pediatric mortality in Michigan.

***Reminder: The CDC has asked all states to continue to collect information on any pediatric death associated with influenza infection. This includes not only any death in a child less than 18 years of age resulting from a clinically compatible illness confirmed to be influenza by an appropriate laboratory or rapid diagnostic test, but also unexplained death with evidence of an infectious process in a child. Refer to http://www.michigan.gov/documents/fluletter_107562_7.pdf for the complete protocol. It is important to immediately call or fax information to MDCH to ensure that appropriate clinical specimens can be obtained.

Congregate Settings Outbreaks (as of December 21): No reports were received during the past reporting week. There have been no reports of congregate influenza outbreaks to MDCH for the 2006-2007 influenza season.

National (Associated Press, December 15): Officials have closed all schools in the Walker County school district in northwest Georgia because of an influenza and strep throat outbreak. Officials decided to close the system's 15 schools after the district reported 12-hundred students absent on December 14. Neighboring Floyd County and Rome are reporting student absences well above average for this time of year -- with suspected cases of the flu and strep throat. Logan Boss, the spokesman for the Northwest Georgia Public Health District, said flu season usually doesn't peak in Georgia until late January or early February, but this time it has arrived early.

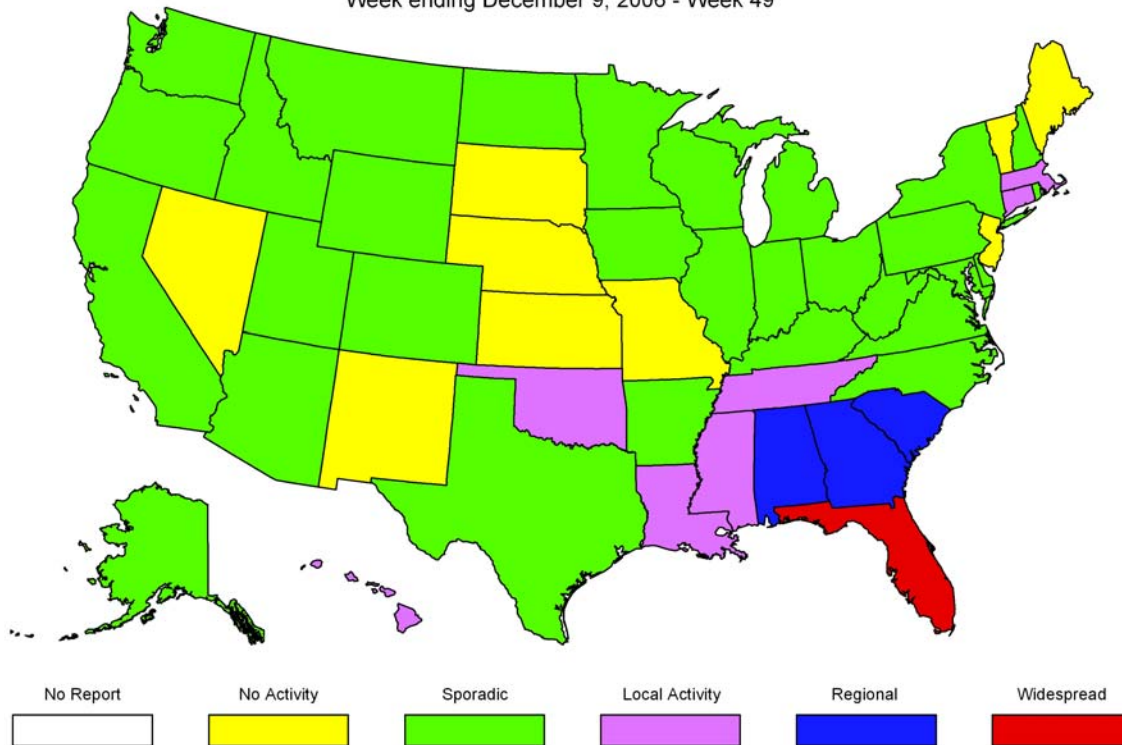
National (CDC, December 20): CDC has released a summary of influenza activity to date for the 2006-2007 season. The report can be found online at <http://www.cdc.gov/flu/about/qa/0607season.htm>. Overall, influenza activity has been low but is increasing, primarily in the southeastern states. The majority of viruses identified this season have been influenza A (H1N1). Deaths due to pneumonia and influenza have stayed below epidemic thresholds. Nationwide, influenza activity has not peaked for the season.

National (CDC, December 14): During week 49 (December 3 – December 9, 2006), influenza activity remained low overall in the United States, but increased in the Southeast. Among specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories for influenza, 4.9% were positive. One state reported widespread influenza activity; three states reported regional influenza activity; seven states reported local influenza activity; 30 states and New York City reported sporadic influenza activity; and nine states and the District of Columbia reported no influenza activity. On a national level, laboratory, outpatient influenza-like illness (ILI) and mortality surveillance increased slightly from week 48 to week 49, but the ILI and mortality data remain below baseline levels.

To access the CDC weekly surveillance report throughout the influenza season, visit <http://www.cdc.gov/flu/weekly/fluactivity.htm>.

Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists

Week ending December 9, 2006 - Week 49



International (WHO, as of December 21): During weeks 47-50, overall influenza activity worldwide remained low. Iran reported localized activity of influenza B virus during week 50. In Sweden, localized activity of influenza A virus has been reported since week 47. For the United States, during weeks 47-49 influenza activity was reported as localized with the overall influenza-like illness (ILI) consultation rate below the national baseline. During week 49, 79% of viruses detected were influenza A and 21% influenza B. Of the A viruses subtyped, all were influenza A(H1).

During weeks 47-50, low influenza activity was reported in Belarus (A), Brazil, Bulgaria (H1 and H3), Canada (A and B), Chile (A and B), France (H3 and A), Hong Kong, Special Administrative Region of China (H1, H3 and B), Italy (A), Japan (H1, H3 and B), Luxemburg (H3), Madagascar (H3 and B), Mexico (A and B), Mongolia, Morocco (H3), Romania (B), the Russian Federation (H1 and H3), South Korea (H3), Switzerland (A), Thailand (H1, H3 and B), Tunisia (B) and the United Kingdom (H3).

Austria, Argentina, Croatia, Denmark, Finland, Greece, Latvia, Norway, Poland, Portugal, Senegal, Slovenia, Spain and Ukraine reported no influenza activity.

MDCH reported **LOCAL ACTIVITY** to the CDC for this past week ending December 16, 2006.

End of Seasonal Report

Avian Influenza Activity

WHO Pandemic Phase: Phase 3 - Human infection(s) with a new subtype, but no human-to-human spread or rare instances of spread to a close contact.

International (Thanh Nien News via Promed, December 19): Bird flu has reared its head again in two Mekong Delta provinces, Bac Lieu and Ca Mau, after over one year during which Vietnam managed to keep the epidemic out. At a conference held on December 19th by the National Steering Committee on Bird Flu Control, Cao Duc Phat, Minister of Agriculture and Rural Development and the committee's head,

slammed the two provincial administrations for negligence and delay in discovering the outbreaks which had occurred at the start of December. On December 6, 2006 the disease broke out in Ca Mau's Tran Van Thoi district, killing 2520 chicks and ducklings, all of which were later found positive for the deadly H5N1 strain of bird flu virus. The next day five duck flocks took ill in Hoa Binh district in Bac Lieu. Some 3500 ducklings died, all of which tested positive for H5N1. The committee claimed the dead birds had not been vaccinated because they had been hatched illegally.

There is a real threat now of the disease spreading to other places since the farmers threw away the birds' carcasses before the outbreak came to light. The current cool weather is also an ally for the virus. Phat instructed the two provinces to quickly quarantine and sterilize their infected areas, and others to maintain extreme vigilance. He also directed local agencies to find out the cause of the outbreaks since there were no reports of recurrence in areas neighboring the 2 provinces. If any new infections occurred, Phat warned, the local administrations would be held responsible. No new cases were reported in the last 13 months in Vietnam while some 140 million poultry were vaccinated against H5N1. Bird flu has been detected in more than 50 countries and 154 people have died. In Vietnam 93 people have been infected by bird flu, with 42 fatalities reported since the disease first appeared in December 2003.

International (FAO, December 14): A nine-person team from the joint FAO/OIE Crisis Management Center (CMC) is in the Republic of (South) Korea on a 10-day mission to collect epidemiological data from farms and surrounding areas following three recent outbreaks of avian influenza in domestic poultry south of the capital Seoul. On the invitation of the Korean government and in cooperation with the country's chief veterinary officer, the CMC experts have been asked to help throw light on the risk of further spread of the disease among birds in the country itself and throughout the region. The Korean authorities are taking care of all control and containment activities related to the outbreaks. The CMC team, which includes international and Korean veterinary epidemiologists, wildlife veterinarians, biologists and poultry specialists, will pay particular attention to the interface between poultry production, marketing and wildlife sectors to gather information that is necessary to better understand potential disease movement among chickens and to or from wild birds. The team will be looking at any wild bird deaths on infected farms or adjacent wetlands, as well as collecting environmental samples that may lead to a better understanding of disease emergence in the area. The Korea mission is the first full-scale multidisciplinary team deployment to be mounted by the CMC since it was officially launched in mid-October at FAO headquarters in Rome.

International (VAO via Promed, December 20): The Nigerian Veterinary Association says the highly pathogenic H5N1 strain of bird flu remains a major problem in Nigeria and warns that the country risks triggering an even bigger round of infection. Veterinary Association spokesman Bala Mohammed says more states have reported new cases of the disease, in the last few weeks. "What we considered a resurgence is becoming alarming. From an initial 3, then 10 states, almost all the states have been having a recurrence," he said. "That is a very serious challenge and it also calls for a review of the entire process that we adopted. In the last month, we've heard about Delta State, Akwa Ibom, Rivers, Cross River and a lot of cases in Lagos." Nigeria and 2 other countries are considered the weakest link in the worldwide campaign to stem the disease. Millions of birds have died or become infected in Nigeria since the avian flu outbreak was first detected, last February, causing severe hardship for farmers, who have had very little support from the government. Veterinary officials believe widespread disaffection with the compensation system put in place by the government is keeping farmers from reporting bird deaths, making tracking of the virus more difficult. The United Nations Food and Agricultural Association estimates that backyard poultry farmers keep 60 percent of Nigeria's 140 million poultry.

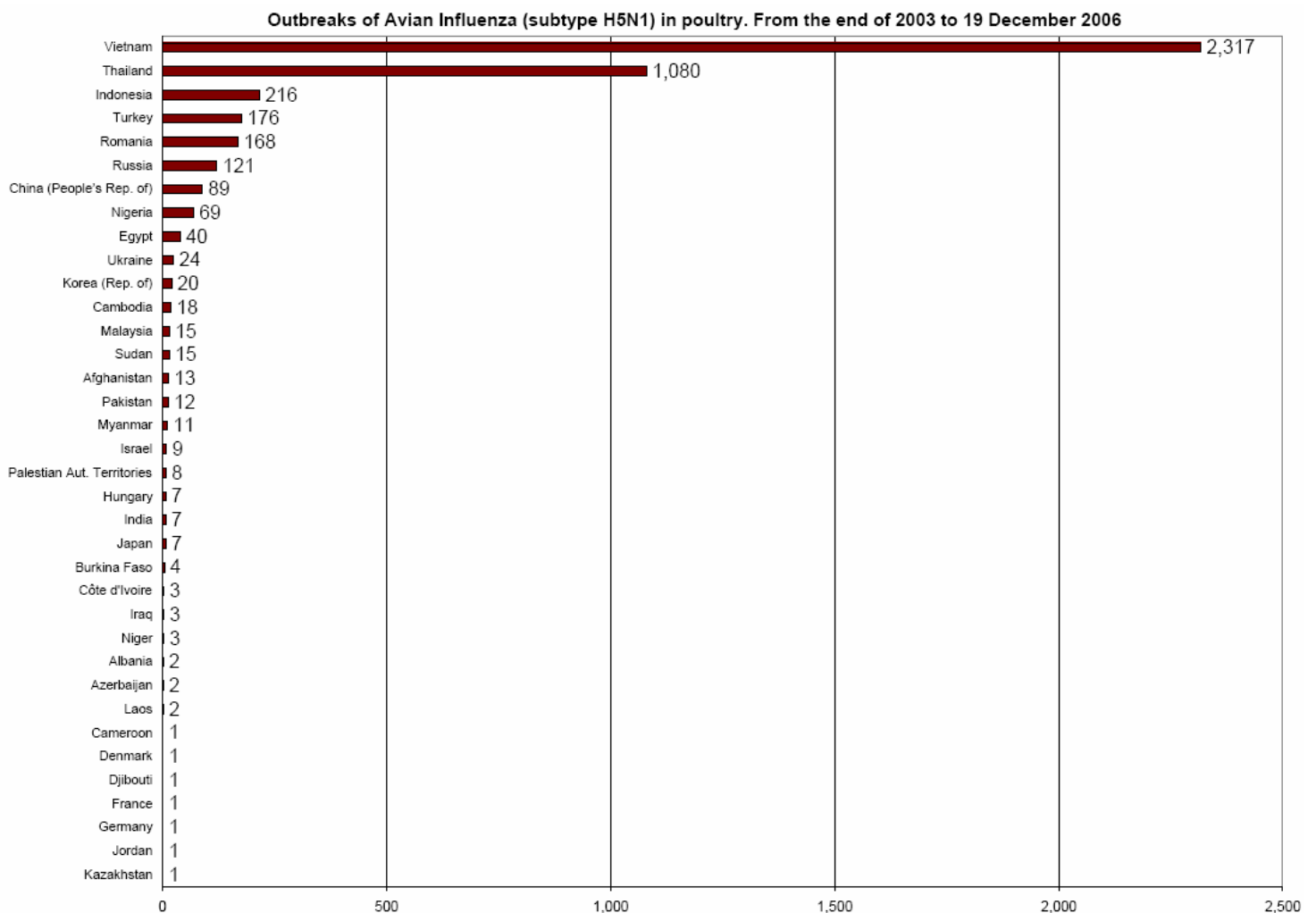
National Wild Bird Surveillance (USDA, December 18): Confirmatory testing on a green-winged teal from Sussex Co., DE has determined the presence of a low pathogenic (LPAI) strain of H5N1 avian influenza. The bird was hunter-killed and the initial sampling was conducted on October 27, 2006.

Because these LPAI H5N1 detections are common and pose no threat to human health, USDA and DOI will post all future suspected LPAI H5N1 detections on the Internet. DOI will maintain a list of all such routine detections as part of the National Highly Pathogenic Avian Influenza Early Detection Data System (HEDDS). The low path H5N1 detection list can be accessed at <http://wildlifedisease.nbj.gov/ai/LPAITable.pdf>. A link also will be available on USDA's avian influenza Web page at <http://www.usda.gov/birdflu>. In the event of a presumptive H5N1 test result involving a large number of sick or dead birds, or other circumstances that suggest the possibility of a highly pathogenic virus, USDA and DOI will issue a news release or conduct a technical briefing to notify the media and the public.

Michigan Wild Bird Surveillance (USDA, December 15): According to the National HPAI Early Detection Data System website, available at <http://wildlifedisease.nhii.gov/ai/>, Michigan has results for a total of 1975 wild birds submitted for testing as of December 8. 470 of these birds were live-captured and tested, 1207 were hunter-killed, 123 were sentinel animals, and 175 were dead birds that were submitted for testing. HPAI subtype H5N1 has not been recovered from any Michigan samples tested to date, or from the 58,903 birds tested nationwide.

To learn about avian influenza surveillance in Michigan wild birds or to report dead waterfowl, go to Michigan's Emerging Disease website at <http://www.michigan.gov/emergingdiseases>.

Please contact Susan Vagasky at VagaskyS@Michigan.gov with any questions regarding this newsletter or to be added to the weekly electronic mailing list.

Table 1. H5N1 Influenza in Poultry (Outbreaks up to December 19, 2006)(Source: http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm Downloaded 12/20/2006)**Table 2. H5N1 Influenza in Humans (Cases up to November 29, 2006)**

(http://www.who.int/entity/csr/disease/avian_influenza/country/cases_table_2006_06_06/en/index.html Downloaded 11/30/2006)

Cumulative number of confirmed human cases of Avian Influenza A(H5N1) reported to WHO. The total number of cases includes number of deaths. WHO only reports laboratory-confirmed cases.

Country	2003		2004		2005		2006		Total	
	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths
Azerbaijan	0	0	0	0	0	0	8	5	8	5
Cambodia	0	0	0	0	4	4	2	2	6	6
China	1	1	0	0	8	5	12	8	21	14
Djibouti	0	0	0	0	0	0	1	0	1	0
Egypt	0	0	0	0	0	0	15	7	15	7
Indonesia	0	0	0	0	19	12	55	45	74	57
Iraq	0	0	0	0	0	0	3	2	3	2
Thailand	0	0	17	12	5	2	3	3	25	17
Turkey	0	0	0	0	0	0	12	4	12	4
Viet Nam	3	3	29	20	61	19	0	0	93	42
Total	4	4	46	32	97	42	111	76	258	154